IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	:	10/658,703	Confirmation No. 2306
Applicant	:	Santi Kulprathipanja et al.	
Date Filed	:	September 9, 2003	
Art Unit	:	1797	
Examiner	:	Prem C. Singh	
Docket No.	:	108297	
Customer No.	:	23490	

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

May 14, 2008

RESUBMISSION IN RESPONSE TO NON-COMPLIANT APPEAL BRIEF
37 C.F.R. 41.37

Dear Sir:

Attached is a resubmission of Section V of the Appeal Brief in response to the defective nature of Section V of the Appeal Brief.

Respectfully submitted,

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AEG/sgb

APPEAL BRIEF (SECTION V)

Before

Board of Patent Appeals and Interferences

in the

United States Patent & Trademark Office

In re:

U.S. Application No.	:	10/658,703
Inventor(s)	:	Santi Kulprathipanja et al.
Date Filed	:	September 9, 2003
Assignee	:	UOP LLC
Examiner	:	Prem C. Singh
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V. Summary of Claimed Subject Matter

The invention, as presented in claim 1, is a product by process, where the product is a modified alkylbenzene (MAB). The MAB is produced by a process wherein a lightly branched acyclic paraffin, having from 8 to 28 carbons, is selectively adsorbed on a silicalite adsorbent to separate the lightly branched acyclic paraffin from more highly branched paraffins. The lightly branched acyclic paraffin is desorbed from the silicalite adsorbent using a C5-C8 cyclo paraffin, normal paraffin, or branched paraffin, and passed to a dehydrogenation zone where the lightly branched acyclic paraffin is dehydrogenated to form a lightly branched monoolefin. The lightly branched monoolefin is passed with a phenyl compound to an alkylation zone comprising a solid molecular sieve alkylation catalyst, thereby generating the MAB. The molecular sieve alkylation catalyst is a physically constraining catalyst that limits the isomerization of the lightly branched alkyl group to produce a high quality modified alkylbenzene.

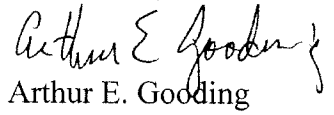
The invention, as presented in claim 16, is a product by process, where the product is a modified alkylbenzene sulfonate (MABS). The MABS is produced by a process wherein a lightly branched acyclic paraffin, having from 8 to 28 carbons, is selectively adsorbed on a silicalite adsorbent to separate the lightly branched acyclic paraffin from more highly branched paraffins. The lightly branched acyclic paraffin is desorbed from the silicalite adsorbent using a C5-C8 cyclo paraffin, normal paraffin, or branched paraffin, and passed to a dehydrogenation zone where the lightly branched acyclic paraffin is dehydrogenated to form a lightly branched monoolefin. The lightly branched monoolefin is passed with a phenyl compound to an alkylation zone comprising a solid molecular sieve alkylation catalyst, generating a phenyl-alkane product stream. The phenyl-alkane product stream is contacted with a sulfonated agent to produce a phenyl-alkane sulfonic acid, which is then neutralized to produce the MABS.

The invention, as presented in claim 17, is a product by process, where the product is a modified alkylbenzene (MAB). The MAB is a monomethyl paraffin that is produced by a process wherein a monomethyl paraffin is selectively adsorbed on a silicalite adsorbent to separate the monomethyl paraffin from a raffinate stream comprising more branched paraffins. The monomethyl paraffin is desorbed from the silicalite adsorbent using a C5-C8 cyclo paraffin, normal paraffin, or branched paraffin, and passed to a dehydrogenation zone where the monomethyl paraffin is dehydrogenated to form a monomethyl olefin. The monomethyl olefin is passed with a benzene feedstock to an alkylation zone comprising a solid molecular sieve alkylation catalyst, thereby generating a phenyl alkane comprising molecules having one phenyl portion and one aliphatic alkyl portion, where the alkyl portion has 2 or 3 primary carbon atoms and no quaternary carbon atoms, except where the carbon atom bonds with a carbon on the phenyl group. The molecular sieve alkylation catalyst is a physically

constraining catalyst that limits the isomerization of the lightly branched alkyl group to produce a high quality modified alkylbenzene.

The invention, as presented in claim 21, is a product by process, where the product is a modified alkylbenzene sulfonate (MABS). The MABS is produced by a process wherein a feed mixture comprising aromatic compounds is enriched in lightly branched paraffins. The lightly branched paraffins are dehydrogenated to generate a stream comprising lightly branched monoolefins. The lightly branched monoolefins are passed with a phenyl compound to an alkylation zone comprising a solid molecular sieve alkylation catalyst, thereby generating a modified alkylbenzene (MAB) product. The MAB is reacted with a sulfonating agent to generate a phenyl-alkane sulfonic acid. The phenyl-alkane sulfonic acid is neutralized to produce a phenyl-alkane sulfonate product, where the phenyl-alkane sulfonate has not quaternary carbon atom, except where any quaternary carbon atom is bonded by a carbon-carbon bond to the phenyl group. The molecular sieve alkylation catalyst is a physically constraining catalyst that limits the isomerization of the lightly branched alkyl group to produce a high quality modified alkylbenzene.

Respectfully submitted,



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